

**METHOD AND SYSTEM FOR NOISE MEASUREMENT IN AN  
IMPLANTABLE CARDIAC DEVICE**

5

**Abstract**

An implantable cardiac rhythm management device is configured to estimating the noise level and noise floor in a sensing channel by measuring the magnitude of signal in the sensing channel when noise is determined to be present or absent, respectively. The presence or absence of noise may be determined by computing the 10 density of local peaks or inflection points in an electrogram waveform. The computed local peak density is then used to set or clear a noise flag, which signifies whether noise is present or not. A noise statistic computed from samples of the electrogram signal obtained through a sensing channel may then be used to estimate a noise level or a noise floor.

"Express Mail" mailing label number: EV332568272US

Date of Deposit: August 19, 2003

This paper or fee is being deposited on the date indicated above with the United States Postal Service pursuant to 37 CFR 1.10, and is addressed to the Mail Stop Patent Application, Commissioner for Patents, P.O.Box 1450, Alexandria, VA 22313-1450.